Work Order ID 1 August-28-13 12:54:37 PM			*10	6221*						Page 1
Item ID: D3167-1		. A	Accept	*N9000	າ40	100)* s	Setup Star	* *N	S1*
Revision ID:							•	Stop	***	CO*
Item Name: Bearpaw								•	171	S2*
Start Date: 8/28/13	Start Qty: 2.00	*2*		Cust Item ID) :					
Required Date: 8/28/13	Req'd Qty: 2.00	*2*		Customer:						
Reference:							_			
Approvals: Process I	Plan: MCS	Date: 13-08-30	Tooling:	Dat	te:		R	Run Star	17	R1*
QC:		Date:	SPC (Y/N):	Dat	te:			Stop	, *N	R2*
Sequence ID/ Work Center ID	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr R	Revision Nbr		,							
D3,167 R	lev A1	•		•						
120			0.00							!
120	FLOW WATER JET						Z	0		JM1310-
Waterjet	Memo	•	0.00							
FLOW CNC Waterjet	Cut Blank as	per File D3167-1_BLANK								
130			0.00							
130	HAAS CNC VERTICAL	MACHINING #1		F.ts 13/11/11			2	0		
HAAS 1	Memo		0.00	JFC 2013-11-	12					
HAAS CNC vertical machine #1	1-Inspect ma	earpaw for (1) Kit sterial for defects or damage s per Folio FA285 and Dwg								
140	QC2- Inspect parts off ma	achine FAI/FAIB	0.00			4				. 4
1/0	- ·		•	Feb. 13/11/1			2	O		. 4-
QC	Memo		0.00	JFC-2013-11-12	-					

Quality Control

NCR: Y	NCR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE												
											QA Closed:	Date	:
Work Orde	er:				•	DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Part N						Rework Scrap	H 1			Crosstube Small Fab	•	Water Jet d. Eng. Coor.	Engineering Quality
NCR N	NCR No.				Use-as-is Work Order Update		Thermoforming Finishi Large Fab Compos			Rec/Sto	Other		
Root					Descri	ption of work order update		nitial	Act	tion	Sign &		
Cause	Da	ete	Step	Qty	(or Non-conformance	Ch	ief Eng	Desci	ription	Date	Verification	QC Inspector
Doc/Data		:											
Equip/Tooling													
Operator	_		•										
Material	Ш												
Setup													
Other			•										
Process	Ш	:											
Supplier	Ш	:											
Training													
Unapproved					<u> </u>						<u> </u>		
							AUL	T CATE	GORY				
Landii	ng Gear	•				General		٠ا			10 "	_	7
	Bend	_			o/c	Bend BOM (Bouts	-	Grain		-	Ovalized	+-l	Pressure/Forced
i	_		t Conce	ntric to	^{0/s} -	BOM/Route	-	Hardwa			Over/Under		Temperature/Cure Weld
	Crac		المصادمة		⊢	Broken/Damaged	-	1 '	ion Incomplete	Unglaar	Part Incorred	<u> </u>	Wrong Stock Pulled
	Cuff		Crimped		_	Burrs Contamination	-	Mainte	tions Incomplete/	Unclear	Part Lost/Mi Part Moved	22111B	
	_	s t Trea	•		<u> </u>	Countersink	\vdash	Mislabe			Positioned V	Vrong	
	 		เ า Strip in	Tuho	<u> </u>	Cut Too Short	\vdash	Misrea		-	Power Loss/		Other
	_ `		Bend	Tube	 -	Drill Holes	\vdash	Offset	u .	<u> </u>	Ti ower cossy	Juige _	Тосне
	$oldsymbol{oldsymbol{ iny}}$		aves in I	Extrusio	" ├	Drawing	\vdash	4	Calibration				
			equence		·	Finish	\vdash	4	Sequence				
I	٠٠٠. لـــــ	0	- 4		L		i	,					

Outside Dimensions

DQA:

Date:

Wave/Twist in Tube

Folio

w, — —————————————————————————————————										<u> </u>		
	Vork Order ID 106221 ugust-28-13 12:54:37 PM				*106221*							Page 2
Item ID: Revision ID: Item Name:	D3167-1 Bearpaw			Accept	*1	1900	040	100)* :	Setup Sta	1/1	S1* S2*
Start Date: Required Date: Reference:	8/28/13 8/28/13	Start Qty: 2.00 Req'd Qty: 2.00	*2* *2*			Cust Item I Customer:	D:					
Approvals:	Process Pla	an:	Date:	Tooling:		Da	nte:]	Run Sta	1/1	R1*
	QC:		Date:	SPC (Y/N):	Da	ite:			Ste	^{op} *N	R2*
Sequence ID/ Work Center II)	Operation Description		Set Up/ Run Ho		Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150		QC8- Inspect parts - seco	ond check	0.00								
150 QC Quality Control		Memo		0.00	240 40 89	13,	/11/12		_2_	Ø		
151 *151* Packaging		Identify as per dwg & Sto	ock Location:	0.00						DAS 32 9-89 /	13/11/12	3 (2

190

Packaging

QC21- Final Inspection - Work Order Release

0.00

190

Memo

0.00

Quality Control

MUS 13-11-13

											DQA:	Date	e:
NCR:	Yes	/ No				WORK ORDER NON-C	O	NFORM	MANCE / UP	DATE	046	D-4	
		:				<u> </u>					QA Closed:	Date	2:
Work Orde	er.					DISPOSITION		AGAINST DEPARTMENT/PROCES					
Work Ora	-					Rework	1		Skid-tube	Crosstube	1	Water Jet	Engineering
Part I	No.					Scrap	1		Machining	Small Fab	Pro	d. Eng. Coor.	Quality
	_	•				Use-as-is	1	Therm	noforming	Finishing	Rec/Stor	re/Packaging	Other
NCR I	No					Work Order Update			Large Fab	Composite		Supplier	
Post										I a. a			
Root		Data	C4		l	ption of work order update	1	nitial		tion	Sign &		
Cause	\vdash	Date	Step	Qty	•	or Non-conformance	Cn	ief Eng	Desc	cription	Date	Verification	QC Inspector
Doc/Data	Н												
Equip/Tooling Operator	Н												
Material	Н												
Setup	H												
Other	Н												
Process	Н			ĺ			0	^					
Supplier	П	:											
Training	H												
Unapproved	Н												
, ,		i	L	1	1	F	AUL	T CATE	GORY		. <u></u>		
Landi	ng G	ear		•		General							7 11
		Bending				Bend		Grain			Ovalized		Pressure/Forced
		Centre No	ot Concei	ntric to	o/s	BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
		Cracks				Broken/Damaged		Inspecti	on Incomplete		Part Incorred	ct [Weld
	Ш	Crushed/0	Crimped			Burrs		Instruct	ions Incomplete/	'Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
	Н	Cuffs				Contamination		Mainte	nance		Part Moved		
	Ш	Heat Trea	it			Countersink		Mislabe	led		Positioned V	Vrong _	_
	-	Inspection	-	Tube	_	Cut Too Short		Misread	l		Power Loss/	Surge	Other
	Ш	Ripples in	Bend			Drill Holes		Offset			· · · · · · · · · · · · · · · · · · ·		
		Torque W	aves in E	xtrusio	n	Drawing	1	Out of C	Calibration				

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

August-28-13 12:54:41 PM

Work Order ID: 106221

106221

Parent Item:

D3167-1

D3167-1

Parent Item Name: Bearpaw

Start Date: 8/28/13

Required Date: 8/28/13

Start Qty: 2.00

Required Qty: 2.00

Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MUHMWB10		Purchased	No			120	sf	607.0003	3.6	7.2			
MUHMW UHMW 1" Black	'R10								**	· 6	3		Jm3-10

Location	Loc Qty	Loc Code	
MAT019	607.0002895		
121278	11.0002895		
122575	47.6		
123229	53		
123704	63.8		
123949	6.96		
124382	197.12		
124758	17.52		
125137	210		

126748

126748

		1								DQA:	Date	•
NCR: Y	es / N	0			WORK ORDER NON-O	100	NFORM	MANCE / UP	DATE			
										QA Closed:	Date:	
Work Orde	ar:				DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
WOIK OIGE		···			Rework	1		Skid-tube	Crosstube	1	Water Jet	Engineering
Part N	lo.				Scrap	1		Machining	Small Fab	Pro	d. Eng. Coor.	Quality
		•			Use-as-is]	Therm	oforming	Finishing	Rec/Sto	e/Packaging	Other
NCR No.				Work Order Update Large Fab Composite			Composite		Supplier			
Root				Descri	ption of work order update		nitial	Ac	tion	Sign &		
Cause	Dat	e Step	Qty		or Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data						ı						
Equip/Tooling												
Operator						1						
Material												
Setup												
Other												
Process						İ						
Supplier												
Training								_				
Unapproved								•				
					F	AUI	T CATE	GORY				
Landi	ng Gear				General		_			_	_	_
	Bend	ng			Bend		Grain	€.		Ovalized		Pressure/Forced
	Centr	e Not Conce	entric to	o/s	BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
	Crack	S			Broken/Damaged		Inspecti	on Incomplete		Part Incorre	ct _	Weld
	Crush	ed/Crimped	i		Burrs		Instruct	ions Incomplete/	'Unclear	Part Lost/M	issing	Wrong Stock Pulled
	Cuffs				Contamination		Mainte	nance		Part Moved		
	Heat	Γreat			Countersink		Mislabe	led		Positioned V	Vrong	_
	Inspe	ction Strip i	n Tube		Cut Too Short		Misread	I		Power Loss/	Surge	Other
	Rippl	es in Bend			Drill Holes		Offset			_		

Out of Calibration
Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish Folio

DART AEROSPACE LTD	Work Order:	155001
Description: Bearpaw	Part Number:	D3167-1
Inspection Dwg: D3167 Rev: A1		Page 1 of 1

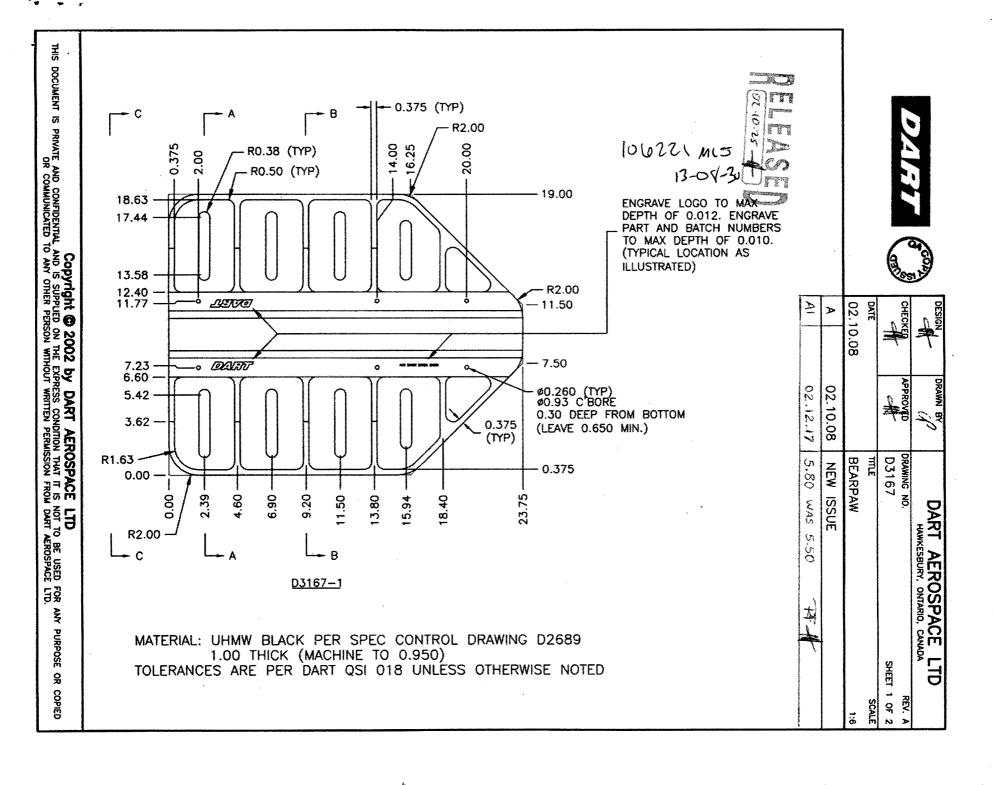
FIRST ARTICLE INSPECTION CHECKLIST

X	First Article	Prototype

Ins _i Draw	pection Sheet ving Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Α	0.06 x 45°	+0.030/-0.010	0.063	/		deather	JK-07
В	5.80	+/-0.030	5.190	✓		Caliper	OFC-01
С	0.25 x 45°	+/-0.030	0.337	V		depthb	0fc07
D	R0.25	+/-0.030	RO.250	V		Rad 6	JFC
E	0.200	+/-0.030	0.200	/		deplit	OK-07
F	0.250	+/-0.010	0.242	V		Calibn	Ofto
G	0.625	+/-0.030	0.612	~		d	l i
Н	0.375	+/-0.010	0.367	V		N	(1
1	0.950	+0.030/-0.010	,956	7		4	₹ j
J	3.21	+/-0.030	3.195	\		u	\1
K	19.00	+/-0.030	19.00	/		tupe	JA-06
L	Ø0.260	+0.005/-0.000	0.360	/		Calini	OP1-01
М	Ø0.93	+/-0.030	₆ 925	7		7	11
N	0.30	+0.030/-0.000	.316	/		deather	グイクフ
0	0.375	+/-0.030	0.378	/		Calipi	OHOI
Р	7.23	+/-0.030	7.225	/		11	11
Q	4.54	+/-0.010	4.537	✓		11	Vf
R	2.00	+/-0.030	2420	\checkmark		\	\ 1
S	12.000	+/-0.010	12000	/		tase	OFE-CL
Т	6.000	+/-0.010	6.000			Colypin	theol
U	23.75	+/-0.030	23.75	V		tame	SHOTE
						. 50	
				SAC.			

Measured by:	F.K. /Jfc	Audited by:	40	Prototype Approval:	N/A
Date:	13/11/11/2013-11	ည Date:	13/11/12	Date:	N/A

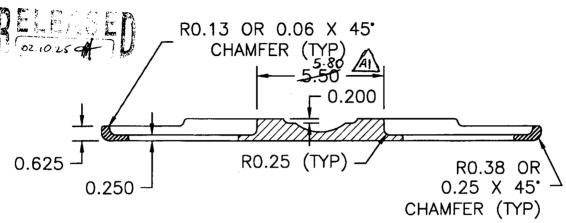
Rev	Date	Change		Revised by	Approved
Α	03.09.22	New Issue	P/O D130-700-011	KJ/RF	+



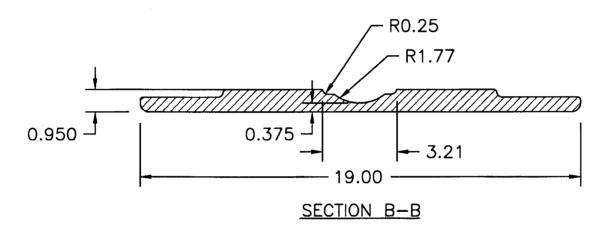


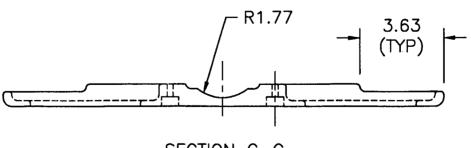


DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO.	REV. A
1		D3167	SHEET 2 OF 2
DATE		TITLE	SCALE
02.10.08		BEARPAW	1:4









SECTION C-C

Copyright © 2002 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.